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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,438	09/13/2004	Ralf Hobmeier	2732-142	6719
6449 7590 09/18/2009 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005			EXAMINER SHAPIRO, JEFFERY A	
			ART UNIT 3653	PAPER NUMBER
			NOTIFICATION DATE 09/18/2009	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary

Application No.

10/507,438

Applicant(s)

HOBMEIER ET AL.

Examiner

JEFFREY A. SHAPIRO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11 and 18-35 is/are pending in the application.
- 4a) Of the above claim(s) 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-11, 18-25 and 27-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/9/09 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-9, 15, 17, 20-22, 24, 25, 28 and 29-31 and 33-37 rejected under 35 U.S.C. 103(a) as being unpatentable over Saltsov et al (US 6,371,473 B1) in view of Saltsov et al (US 7,051,926 b2).

Regarding Claims 1 and 2, Saltsov '473 discloses a transport system (1) having various transport paths, a diverter device (500), a central transport path (104), said diverter device having a bi-directionally drivable transport path formed by halves (702, 704) as illustrated in figures 15, 28 and 29, the bidirectionally drivable transport path being between two transport path branchings, and a diverter module formed in part with elements (2, 3a, 3b and 3c) with twelve inputs/outputs, i.e, six each at each diverter (500, 700, 702, 704). Note that path defined by (702, 704) is construed to run through the center of diverters (500), as illustrated at figure 15, thus connecting several branchings as the diverter is rotated to match up the bidirectionally drivable transport path with the various branchings accordingly. Note that central path (104) is stationary, i.e., fixed, with respect to diverter (500). Note also that the path defined by elements (702, 704) is fixed relative to the diverter (500), i.e., they do not move with respect to diverter (500). Note that Applicant's claims do not preclude any of these interpretations.

Further regarding Claim 1, note that Saltsov's diverter module is a "separate part" and that it can be removed from Saltsov's apparatus.

Note also that Saltsov's bidirectionally driveable transport path (104) is fixed in position with respect to the diverter module (500), which is movable, i.e., rotatable with respect to said path (104).

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Regarding Claim 3, note that diverter module (2, 3a, 3b and 3c) and components thereof may be removed, opened and separated, for example, as illustrated at figure 28.

Regarding Claim 4, note that diverter (500) located between (2) and (3a), with six input/outputs is connectable with diverter (500) located between (3b and 3c).

Regarding Claim 5, note figure 15, which illustrates that both diverters (500) may be coordinated so as to create a single path (104) through the diverter device.

Regarding Claim 6, note that diverter (500) is construed as having several "diverter vanes" (700, 702 and 704) as illustrated in figure 28.

Regarding Claims 7, 15 and 17, note that the diverter vanes of Saltsov are moved by a drive device, i.e., an actuator, in the form of a gear train connected to a motor, as described at col. 8, lines 15-26.

Regarding Claims 8 and 25, Saltsov discloses an input device in the form of an input slot assembly (101). Note that elements (3a, 3b and 3c) of the diverter module are escrow devices which have the capability to store the banknotes temporarily. Saltsov also has a receiving cashbox in the form of cassette (4).

Regarding Claims 9, 22 and 28, note that Saltsov discloses both escrow elements (3a, 3b and 3c) as well as cassette (4), with transport paths leading to and from these elements, as illustrated in figure 15.

Regarding Claims 20 and 21, Saltsov discloses a banknote storage device (122) with film strip (124) wound on a spool/drum (130), driven by a motor (134), as disclosed at col. 5, lines 45-65.

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Regarding Claim 24, see Saltsov, figure 18, noting that the diverter is located between escrow devices (3b and 3c).

Regarding Claim 29, Saltsov illustrates in figure 29a and at col. 9, line 25-col. 10, line 5, a direction of rotation switch over transmission with an input shaft (866) with first output shaft (870) and second output shaft (872). Note that the shafts are rotatable in either clockwise or counterclockwise direction.

Regarding Claim 30, note third transmission output shaft (868), which drives in one direction when attached to shaft (866) due to the fact that the gears of these shafts must rotate opposite to each other.

Regarding Claim 31, note figure 29, illustrating the geared couplings between said shafts.

Regarding Claim 33, note drive unit, as discussed at col. 10, lines 1-5 of Saltsov.

Regarding Claim 34, note that gear (872) is connected to unidirectional path (850) if it is rotated in one direction and that the gear (870) is connected to the bi-directional device.

Regarding Claim 35, note again that said apparatus of Saltsov is for depositing banknotes. All components are "connectable". Note that the term "connectable" is not connected. Each of Saltsov's components are "connectable" to everything else in Saltsov's apparatus, as is Applicant's components in the claimed apparatus.

Regarding Claim 36, note that a second position where the routing switch is removed to is a position completely removed from said transport system, i.e., if the

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routing switch is removed from the validator and placed on any location such as the floor or table, such a location meets these limitations.

Regarding Claim 37, note that if the second location is partially removed, i.e. half in and half out of the device, such as when the interior of the validator is slide out from the housing, this is construed as partially removed from the transport system, since the transport system can be construed as including pathway (102), for example.

Regarding Claim 1, Saltsov '473 does not expressly disclose, but Saltsov '926 discloses bidirectional diverter, i.e., routing switch (130) which is illustrated at figure 13 and mentioned at col. 8, lines 5-14 and 40-46. Col. 9, lines 4-26 describe the removal of the diverter (130) by splitting the two halves of the validator away from each other, as illustrated in figures 15-17. Saltsov '926 recites at col. 9, lines 41-43 that such removal of the routing switch, i.e., the diverter module in this manner implemented for the purpose of "ease of service and simple replacement of modules."

Note that it also would have been obvious to incorporate a routing switch in Saltsovs '473 validator as taught in Saltsov '926 which has as many as five diversion paths, as one ordinarily skilled would have recognized to incorporate as many diversion paths as necessary in order to handle the volume of bills required.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have removed Saltsov's '473 diverter module, i.e., routing switch (500) as a single diverter module in the manner taught by Saltsov '926 since the '473 validator works in the same way as the '926 validator.

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Claims 10-14, 16 and 27 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltsov '473 in view of Salstov '926.

Saltsov '473 discloses the banknote apparatus as described above.

Regarding Claim 10, Saltsov '473 does not expressly disclose, but Saltsov '926 discloses a diverter (100a) having five separate transport paths about the diverter, as illustrated in figure 3, with diverter (100a) having five separate paths and ten separate input/outputs.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a diverter having five separate transport paths and ten separate input/outputs for the purpose of directing banknotes to more storage and processing devices, thus increasing the capacity of the banknote apparatus.

Regarding Claim 11, it would have been obvious to one of ordinary skill to have connected any of the five paths of Saltsov '926 with any of the ten input/outputs of the diverter (100a) so as to direct bills to any particular path as required.

Regarding Claims 12-14, note that the actuator discussed in reference to Claim 7, above, is construed to have a transmission in the form of a gear train, connected to a motor, as described at col. 8, lines 15-26 of Saltsov '473.

Note that it would have been obvious to one of ordinary skill in the art to have added as many outputs as required so as to drive several items with a single drive input. Note also that it would have been obvious to include a freewheel, such as a clutch, as recited in Saltsov '473 at col. 5, lines 54-65, for the purpose of allowing the transmission to engage and disengage shafts and gears from the driving mechanisms.

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Note that these are well-known techniques of transmitting power through mechanical means, as illustrated by Saltsov '473.

Regarding Claim 16, note that it would have been obvious to engage and disengage the driving motor via at least one freewheel/clutch so as to selectively drive various components of Saltsov '473's banknote apparatus.

Regarding Claim 27, note that it would have been obvious to have used belts to connect the drive transmission to the other driven components such as the diverters of Saltsov's apparatus, as again, this is a well-known technique of transmitting drive power from a driving component to a driven component. Note figure 14, for example, which illustrates such belts (233).

Regarding Claim 32, official notice is taken that it would have been obvious to connect flywheels to any particular output transmission in order to drive another component.

5. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltsov et al (US 6,371,473 B1) in view of Saltsov et al (US 7,051,926 b2) and further in view of Gromatzky (US 5,996,888).

Saltsov '473 discloses the device as described above.

Regarding Claim 38, Saltsov does not expressly disclose, but Gromatzky discloses using screws for mating validator parts together. See Col. 4, lines 34-37. One ordinarily skilled would have used such a fastening method for the purpose of removably fixing one part to another.

Regarding Claim 39, it would have been obvious to one of ordinary skill in the art to have swung out Saltsov's interior device rather than by sliding, or with both, as taught by Gromatzky at figures 2a-3b and at col. 4, lines 25-50.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have effectuated removal of the router switch from the interior by loosening of screws since this is a common method of fastening parts such as Saltsov's housing and router switch together.

It also would have been obvious to one of ordinary skill in the art to have swung out Saltsov's interior device rather than by sliding, or with both, as taught by Gromatzky at figures 2a-3b, for the purpose of "ease of service" as mentioned in Saltsov '926 as cited previously at col. 9, lines 41-43.

5. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saltsov 473 in view of Saltsov '926 and further in view of Mennie et al (US 6,241,069).

Saltsov '473 discloses the banknote apparatus as described above.

Regarding Claims 18 and 19, note that Saltsov '473 discloses at col. 2, lines 7-12, that a controller controls all "modular components" so as to transport banknotes into any of the escrow devices (3a, 3b, 3c).

Saltsov '473 does not expressly disclose, but Menne discloses setting user specific defaults, i.e., user defined keys, for the purpose of customizing operation of a banknote handling apparatus at col. 15, line 35-col. 16, line 25.

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At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated user-defined defaults for the purpose of customizing the operation of Saltsov's banknote handling apparatus.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saltsov '473 in view of Saltsov '926 and further in view of Ross (US 6,540,136 B1).

Saltsov '473 discloses the banknote apparatus as described above.

Regarding Claim 23, note that Saltsov '473 discloses a cassette (4).

Saltsov '473 does not expressly disclose, but Ross discloses a cassette having reed switch and magnet at col. 1, lines 15-35.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have incorporated a reed switch and magnet in Saltsov's cassette, as taught by Ross, for the purpose of detecting the level of the banknotes in the cassette.

Response to Arguments

7. Applicant's arguments filed 9/12/08 have been fully considered but they are not persuasive.

The recent decision rendered in *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 USPQ2d 1385 (2007) forecloses the argument that a specific teaching, suggestion or motivation is required to support a finding of obviousness. See recent Board decision *Ex Parte Smith*, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (citing *KSR*, 82 USPQ2d at 1396) (available at <http://www.uspto.gov/web/offices/dcom/bpai/prec/fd071925.pdf>).

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Also, “[a] combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1731, 82 USPQ2d at 1396.

Additionally, “[w]hen a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1731, 82 USPQ2d at 1396.

Note that Saltsov’s diverter device has a bidirectionally drivable transport path formed between elements (702, 704) as illustrated in figures 28 and 29. As illustrated in figures 21-24, as element (500) is rotated, the central drivable path is mated up with the branches located outside the perimeter of the diverter device so as to transport bills in directions that are located opposite each other, i.e., to the left and to the right of diverter (500) as needed.

Saltsov ‘926 teaches a diverter device, i.e., routing switch (130) with five paths which are combinable with ten different inputs and outputs. See again figures 15-17 of Saltsov ‘926.

One ordinarily skilled in the art would have recognized from Saltsov's '926 teaching of removing the router switch (130) as a single module, that Saltsov's '473 router switch would easily be removable in a similar technique since they both are the same or similar device. Further, it is a relative term as to what is a "whole" which constitutes the module. Saltsov's router switch (130) can be construed as an entire module which is a "whole" part. Furthermore, Saltsov '926 in figures 15-17 illustrates the entire validator being moved first outward from the housing, then splitting in two halves, from which the central router switch (130) is removed.

Thus, Applicant's claims are construed to read on Saltsov's '473 apparatus based upon the teaching of the Saltsov '926 apparatus.

Note also that with regards to assertions of what elements comprise which module, the term "module" is a relative term which simply means a collection of parts. Note that any number of parts can be construed to be a module. Note that any number of parts can be construed to be a module that can be removed or connected as required. There are no limitations in Applicant's claims which limit this interpretation.

With regards to the 103 rejection above, note that contrary to Applicant's assertions, the inputs/outputs of storage devices (2, 3a, 3b and 3c) are transport paths as they are paths on which banknotes are transported.

Thus Applicant's claims are construed to read on the combination of Saltsov '473, Saltsov '926, Ross and Mennie.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY A. SHAPIRO whose telephone number is

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(571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey A. Shapiro/
Primary Examiner, Art Unit 3653

September 14, 2009